

## 2D Imaging Data Collection Sensor With Matching Illuminator

### Abstract

A 2D imaging data collection sensor with matching illuminator. The illuminator comprises an array of light emitting reflectors projecting an illumination pattern onto a target area containing an image to be read. The illumination pattern both serves as visual aiming assistance and provides target illumination. The shape of the projected illumination pattern is generated by an array of reflectors, reflecting light that emanates from an array of light sources. The shape of the individual reflectors, and the arrangement of the reflectors and light sources produce the desired uniformity and shape of the illumination pattern. The target image is sensed by an image sensor, and a micro-controller performs all sensor-setting, image capture, feature extraction, and decoding. Results are sent to a PC via a serial communication port.